how, there is as yet no answer. It is as true of telephony to-day as it was in 1876 that a child can use what the wisest sages cannot comprehend.

Here is a tiny disc of sheet-iron. I speak. It shudders. It has a different shudder for every sound. It has thousands of millions of different shudders. There is a second disc many miles away, perhaps 2,500 miles away. Between the two discs runs a copper wire. As I speak, a thrill of electricity flits along the wire. The thrill is moulded by the shudder of the disc. It makes the second disc shudder. And the shudder of the second disc reproduces my voice. That is what happens. But how-not all the scientists of the world can tell.

The telephone current is a phenomenon of the ether, say, the theorists. what is ether? No one knows. Oliver Lodge has guessed that it is "perhaps the only substantial thing in the material universe," but no one knows. There is nothing to guide us in that unknown country, except a signpost that points upward, and bears the one word—"Perhaps." The Ether of Space! Here is an Eldorado for the scientists of the future, and whoever can first map it out will go far toward dis-covering the secret of telephony. Some day, who knows, there may

Some day, who knows, there may come the poetry and grand opera of the telephone. Artists may come who will portray the marvel of the wires that quiver with electrified words, and the romance of the switchboards that tremble with the secrets of a great city. Already Puvis de Chavannes, by one of his supperb panels in the Boston Library, has admitted the telephone and telegraph to the world of art. He has embodied them as two flying figures, poised above to the world of art. He has embodied them as two flying figures, poised above the electric wires, and with the following inscription underneath:—"By the wondrous agency of electricity, speech flashes through space, and swift as lightning bears tidings of good and will."

## By Royal Warrant.

PURVEYORS TO HIS MAJESTY.

## WHAT IT AMOUNTS TO.

The right to print the Royal Coat of Arms upon the goods one sells, surmounted by the legend, "By Special Appointment Purveyor to His Majesty the King." is one which is coveted by all Britishand many foreign-tradesmen and manufacturers. It gives, as it were, the stamp of royal approval to the product of the receive the royal warrant before he can o advertise his wares.

The late King Edward during his reign issued 940 of these warrants, so just 940 firms have been entitled to use the royal arms; but they were all expected to re-move the device from their signs, their letter heads, and their labels when King Edward died, for the right to use it dies with the sovereign who grants it.

The warrants are not a mark of exclusive privilege, for they may be granted to many men in the same line of For instance, there are business, brewers who have had the right to an-

same is true of wines, yet no less than 38 wine merchants claim the privilege of stocking his wine cellar. Six champagne firms and four brandy-makers can show documentary proof that they were patronised by him. As an offset to this, no less than nine manufacturers of mineral waters and temperance drinks were among the ricipients of royal warrants.

Twenty-six jewellers acquired the right to show the royal arms. Eight proprietors of perfumery make it impossible to guess what was the King's favourite scent. Five hairdressers are rivals for public patronage on the ground that each of them enjoyed the royal patronage. Three chiropodists are entitled to call themselves royal corn-parers.

It is generally supposed that the King patronised one particular firm of West End tailors, but 16 other tailors are provided with equal evidence that they made his clothes. A dozen latters show the same proof that each of them made the King of England's headgear.

Sixteen butchers figured as purveyors of ment to His Majesty. Ten bakers were each supposed to supply the bread consumed at the royal table, and the same number of fishmongers produced chims that each of them supplied it with fish. Five soap manufacturers were purveyors of soap to His Majesty. Six bootmakers were appointed to provide him with boots. Eight tobacconists were entitled to display the royal arms. King Edward gave up cycling some years ago, finding himself a hit too stout and elderly for indugence in that exercise, but six cycle manufacturers held royal warrants.

Only one man can claim that he alone Sixteen butchers figured as purveyors

Only one man can claim that he alone Only one man can claim that he asone in his trade possessed a royal warrant. He is a chimney sweeper. There is also a firm which had a right to call itself "Vermin Destroyer to His Majesty." This is the firm that keeps the royal kitchens clear of cockroaches and the royal panting from a royal and mine. tries free of rats and mice.

In addition to these there are 187 holders of royal warrants from Queen Alexandra. Among them are ten dressmakers, five milliners, and two corset-makers.



THE WIRE-CHIEF'S BOARD.

When the "chief operator" reports a break anywhere in the system, it is the task of these men to locate it within a few feet, in order that it may be repaired without loss of time.

firm. No man may use the royal arms without a special warrant, and a heavy fine follows any infraction of the rule. The device, of course, means that the article upon which it is placed is supplied to the King's household, or that the shop which so proudly displays it is or has been patronised by His Majesty. But the mere fact of the King entering a cigar shop, and buying a cigar, does not give that tobacconist the right to use the royal arms on his cigar brands or upon the sign over his door. He must

nounce that they are "By Special Appointment Purveyors to His Majesty the King." This, of course, does not mean that the King drank the beer brewed by all of them; as a matter of fact, King Ed-ward rarely touched beer, for which he did not care; but it does mean that thei-beer is supplied to the royal cellurs for the use of the King's guests and house-

Ten distillers sported the royal arms as purveyors of whisky to the King. Yet of whisky he partook very sparingly. The

